

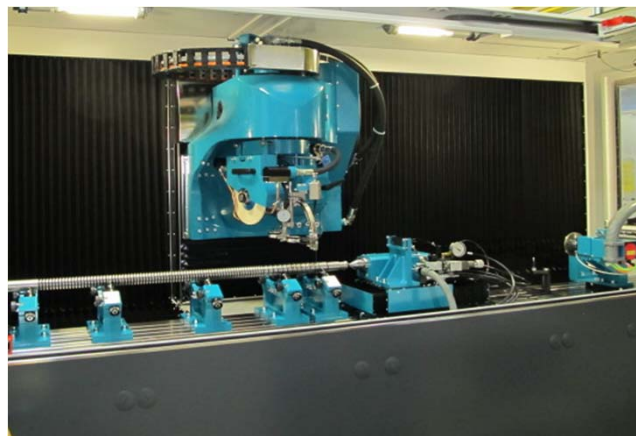
Round broach WI 26484

A14-020

The production process of this example tool contains full depth grinding of spline with the depth of 3.5mm and removal rate of 0.1mm per pass. Dressing in between cycles and certain finishing cycles are also necessary here.








The profile is made with profiled wheel which is calculated and dressed directly on the machine. The tool is clamped between centers, supported by steady rests and is driven by dog and driver.

This calculation includes also grinding of O.D. and resharpener time for serrations. Tooth alternation and division of teeth can be entered directly in Quinto software or probed by 3D probe on the machine.



Example broach of similar size on Corvus C360

1. Cycletime for Production

Workpiece: WI 26484				
Length: 1550mm; Diameter: 55.27mm; Nr. of splines: 17				
Material HSS				
Operations				
Feed [mm/Min]	3000	5	5	5000
Power [kW]		3	2	3
Cutting feed [m/s]		25	28	30
Used wheels				
Grinding time [min]	7	100	120	220
Total cycle time	7h 27min			

The cycle times are indicative. Material to be ground, grinding wheels, coolants can influence the cycle times considerably.

Process time for spline production:
220min

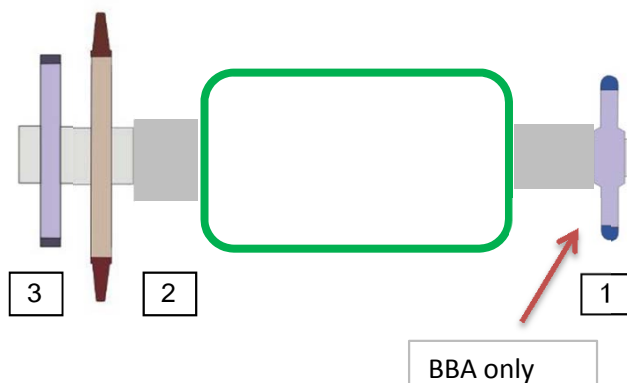
Process time for O.D. grinding (if necessary): 120min

Process time for **resharpening** only:
100min

Profile is made on Corvus C360
Resharpener made on Corvus BBA

2. Used Grinding Wheels

1	14F1 Ø80 B91
2	Profiled 53A80 Ø250
3	1V1 70° B91



3. Machine and Software Requirements

Machines:	CNC grinders : Corvus BBA/ C360	Coolant:	Synthetic Oil, pressure 6 bar
Control:	Fanuc 160i / 310i	Software:	Quinto
Accessories:	Dog and driver, Tailstock, Support, Magnetic plate		
Responsible engineer:	SIW, 02.2016		

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